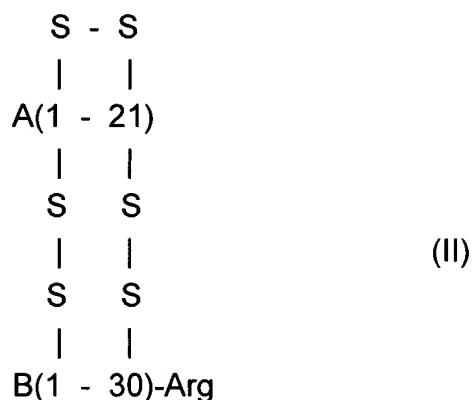


LISTING OF THE CLAIMS:

The pending claims of the application are listed below. No claim amendments are presented herein.

1.-20. (Canceled)

21. (Previously Presented) A method for the preparation of a mono-Arg-insulin compound of formula II



in which A(1-21) and B(1-30) denote the A and B chains of human insulin and the -S-S- bridges are positioned as in insulin, which comprises:

(a) expressing in a bacterium a DNA molecule encoding a fusion protein which comprises a mini-proinsulin compound of the formula:



- (b) liberating said mini-proinsulin compound from said fusion protein;
- (c) folding and forming disulfide bridges in said mini-proinsulin compound;
- (d) incubating said mini-proinsulin compound with trypsin; and
- (e) precipitating the mono-Arg-insulin.

22. (Previously Presented) A method for the preparation of insulin which comprises:

- (a) expressing in a bacterium a DNA molecule encoding a fusion protein

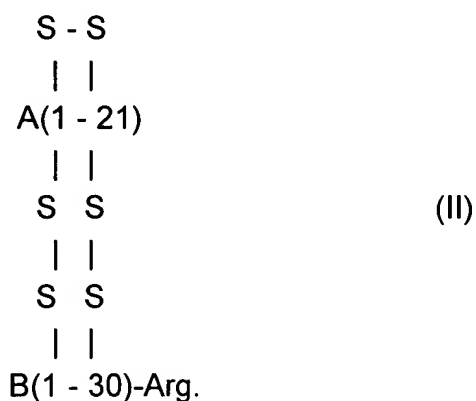
which comprises a mini-proinsulin compound of the formula:



in which B(1-30) and A(1-21) denote the B and A chains of insulin;

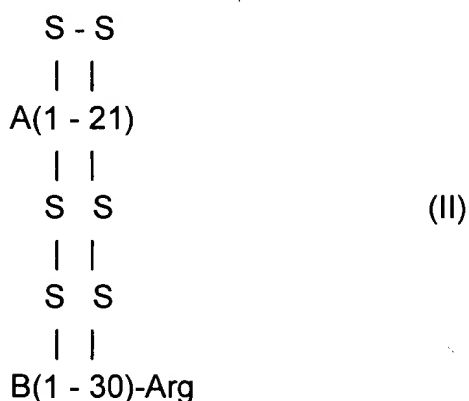
- (b) liberating said mini-proinsulin compound from said fusion protein;
- (c) folding and forming disulfide bridges in said mini-proinsulin compound;
- (d) simultaneously incubating said mini-proinsulin compound with trypsin and carboxypeptidase B; and
- (e) precipitating the insulin.

23. (Previously Presented) A method as claimed in claim 22, wherein step (d) is carried out in one vessel without having to isolate as an intermediate mono-Arg-insulin of formula II



24. (Canceled)

25. (Previously Presented) A method for the preparation of a mono-Arg-insulin compound of formula II



in which A(1-21) and B(1-30) denote the A and B chains of human insulin and the -S-S- bridges are positioned as in insulin, which comprises:

(a) expressing in a bacterium a DNA molecule encoding a fusion protein which comprises



bonded via a bridging member,



to a peptide which stabilizes the fusion protein;

(b) liberating a mini-proinsulin compound from said fusion protein by cleaving the expressed fusion protein resulting from step (a) with cyanogen bromide;

(c) folding and forming disulfide bridges in said mini-proinsulin compound;

(d) incubating said mini-proinsulin compound with trypsin; and

(e) precipitating the mono-Arg-insulin.

26. (Previously Presented) A method for the preparation of insulin which comprises:

(a) expressing in a bacterium a DNA molecule encoding a fusion protein which comprises

B(1-30)-Arg-A(1-21)

bonded via a bridging member,

- Met - Ile - Glu - Gly -Arg -,

to a peptide which stabilizes the fusion protein;

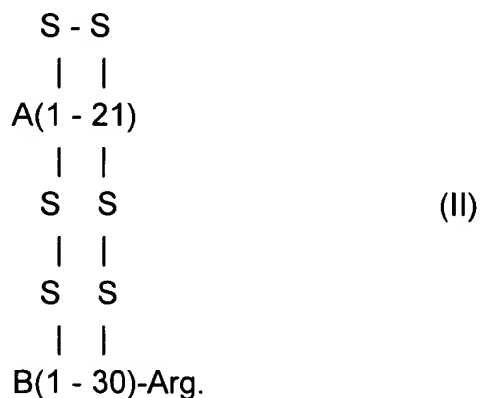
(b) liberating a mini-proinsulin compound from said fusion protein by cleaving the expressed fusion protein resulting from step (a) with cyanogen bromide;

(c) folding and forming disulfide bridges in said mini-proinsulin compound;

(d) simultaneously incubating said mini-proinsulin compound with trypsin and carboxypeptidase B; and

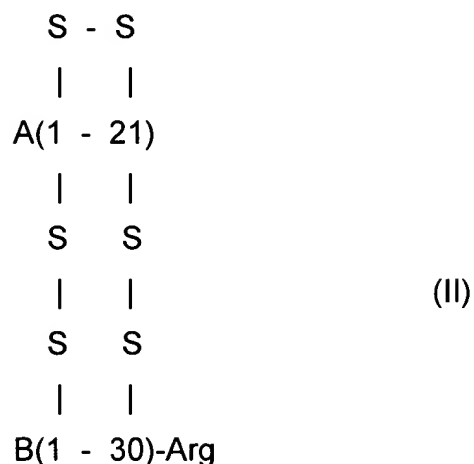
(e) precipitating the insulin.

27. (Previously Presented) A method as claimed in claim 26, wherein step (d) is carried out in one vessel without having to isolate as an intermediate mono-Arg-insulin of the formula II



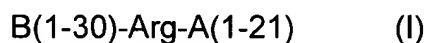
28-38. (Canceled)

39. (Previously Presented) A method for the preparation of a compound of the formula II



wherein A(1-21) and B(1-30) denote the A and B chains of human insulin and the -S-S- bridges are positioned as in insulin, comprising:

- (a) expressing a DNA sequence encoding the compound of formula I

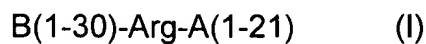


in a bacterium; and

- (b) cleaving the expressed compound of step (a) with trypsin.

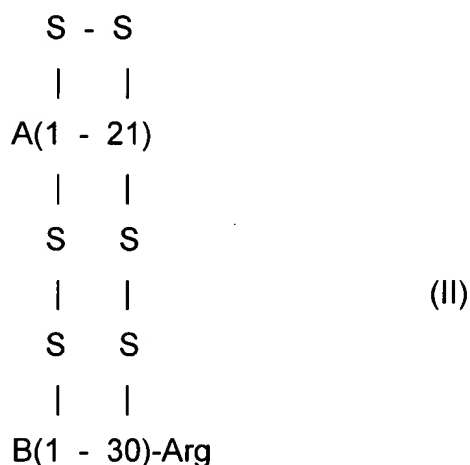
40. (Previously Presented) A method for the preparation of insulin comprising:

- (a) expressing a DNA sequence encoding the compound of formula I



in a bacterium;

(b) cleaving the expressed compound of step (a) with trypsin resulting in the compound of the formula II

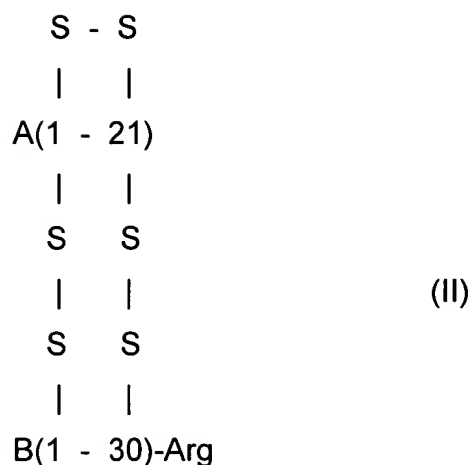


wherein A(1-21) and B(1-30) denote the A and B chains of human insulin and the -S-S- bridges are positioned as in insulin; and

(c) cleaving the resulting compound of step (b) with carboxypeptidase B.

41. (Previously Presented) The method of claim 40, wherein steps (b) and (c) are carried out in one vessel without having to isolate the intermediate compound of the formula II.

42. (Previously Presented) A method for the preparation of a mono-Arg-insulin compound of the formula II



in which A(1-21) and B(1-30) denote the A and B chains of human insulin and the -S-S- bridges are positioned as in insulin, which comprises:

(a) expressing a DNA sequence encoding a mini-proinsulin compound of the formula:



in a yeast; and

(b) cleaving said mini-proinsulin compound with trypsin.